

I CLAIM:

1. A wave and tide actuated energy pump which uses the length of the pump cylinder 7, mounted to or near the seabed floor, to accommodate shifting wave and tide conditions. The longer the cylinder 7 the greater the accommodation.
2. A wave and tide actuated energy pump, in conjunction with the length of the pump cylinder 7, uses the depth of the medium in which it is placed to accommodate shifting wave and tide conditions.
3. A wave and tide actuated energy pump which uses the length of the pump cylinder 7, imbedded in the earth or seabed floor, the depth of the liquid medium and the depth of a hole drilled in earth or seabed floor to accommodate shifting wave and tide conditions.
4. A piston 8 whose weight is sufficient to provide the pressure necessary to pump the liquid in which it is contained.
5. A piston 8 with one or more sealing rings 9 and 10 to provide a seal against the cylinder wall 7.
6. A piston 8 whose tolerances, size and mass are sufficient to provide a seal against the cylinder wall 7 without sealing a ring.
7. A buoy 1 whose draft is determined by the depth of wave action below the surface. The buoy 1 displaces water down to the maximum practical depth of the wave action and the piston 8 is weighted according to this displacement. Typically, the practical distance down a wave action is transmitted is approximately 15 feet beneath the surface.
8. A buoy 1 whose freeboard or surplus buoyancy is determined as needed to raise the buoy, as close as possible, to the same speed as the wave is traveling vertically but not sufficient enough to keep from positioning buoy within the desired angle of repose in ocean currents with or without the aid of mooring lines.
9. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create a field 2 of wave and tide actuated pumps for the benefit of delivering a greater volume of energy in the form of fluid or water and fluid or water pressure.
10. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create an oxygen regeneration system by pumping oxygen enriched sea water from the surface to the bottom of the ocean floor.
11. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create
12. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create a reservoir 7 of stored energy in the form of the fluid or water pumped.
13. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create hydro-electric power 8 from said reservoir 7 or directly from the wave and tide actuated pump 1.
14. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to use booster pumps 9 to increase pressure when needed.
15. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create evaporation ponds 5 for mineral and chemical extraction, refinement and toxic waste removal from the sea.
16. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create large bodies of in land lakes 11 and seas for the evaporation sea water for the purpose of forming moisture laden clouds.
17. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create a process 12 where prevailing winds will blow these clouds 11 to natural and man made barriers, causing rain to fall.
18. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create new pasture and farmland 13 created by resultant rainfall 12.
19. I claim a process as shown on process flow sheet, page 17, using ~~this~~ ^{A(24)} wave and tide actuated pump 1 to create a process 12, 13 which will moderate the earth's climate 14.

20. I claim a process as shown on process flow sheet, page 17, using ^{ARH}~~the~~ wave and tide actuated pump 1 to desalinate water 8.
21. I claim a process as shown on process flow sheet, page 17, using ^{ARH}~~the~~ wave and tide actuated pump 1 to create levied sea animal farming 10 and harvesting of sea food.
22. I claim a process as shown on process flow sheet, page 17, using ^{ARH}~~the~~ wave and tide actuated pump 1 to claim land from the sea 6 by pumping water out of a levied area.
23. I claim a process as shown on process flow sheet, page 17, using ^{ARH}~~the~~ wave and tide actuated pump 1 to clean up oil spills 3 and other contaminants.